



ATA

Makes Life Brighter

Generators & Switchgear Solutions

ATA, Cummins, QSZ13-G3, 563 KVA

Engine Speed-RPM	Standby Power		Prime Output Power		Continuous Power	
	Kw/KVA	HP	kW/KVA	HP	kW	HP
1500	500/625	620	450/563	603		

Engine Model: QSZ13-G3	CPL: 3690
Compression Ratio: 17:1	Engine Configuration: DOC3004GX03
Bore: 130 mm	Displacement: 13.0 L
Stroke: 163 mm	Cylinders: 6
Governor Regulation: ≤1%	Aspiration: Turbocharged & Charge Air Cooled
Emission Certification: MEP STAGE II	Fuel System: XPI

Fuel Rating Option used for these Data:

FR20322

Governed Engine Speed:	-RPM
Gross Engine Power Output:	-kW
Torque:	-N.m
Engine Idle Speed:	-RPM
Friction Horsepower:	-kW
Piston Speed:	-m/s
Engine Water Flow to Engine:	-litre/sec
Intake Air Flow:	-litre/sec.
Exhaust Gas Temperature:	-litre/sec
Exhaust Gas Flow:	-°C
Radiated Heat to Ambien:	-kW
Heat Rejection to Coolant:	-kW
Heat Rejection to Fuel:	-kW
Turbocharger Compressor Outlet Pressure:	-kPa
Turbocharger Compressor Outlet Temperature: ...	-°C

Prime Power
1500
450
2865
37
8.15
6.5
35
36.45
530
104
155
250
198

Dimensions

Type	Length (mm)	Width (mm)	Height (mm)	Fuel Tank (L)	Weight (KG)
Open	3800	1200	1800	1110	3760
Closed	4920	1600	2210	1110	5160

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GENERAL ENGINE DATA

Approximate Engine Weight - Dry:	- kg	1195
Approximate Engine Weight - Wet:	- kg	1260
Engine Idle Speed:	- RPM	700
Compression Ratio:		17:1
Fire Order:		1-5-3-6-2-4
Center of Gravity		
from front face of block:	- mm	519
above crankshaft centerline:	- mm	201

ENGINE MOUNTING

Maximum static mounting surface bending moment		
Rear face of block:	- N.m	1356

LUBRICATION SYSTEM

Oil pressure @ idle - minimum:	- kPa	89.6 Total
system capacity (standard pan):	- L	45.42
Maximum lube oil flow to all accessories:	- L/min	7.57 Typical
oil pressure range - warm engine:	- kPa	207 - 345

AIR INTAKE SYSTEM

Maximum temperature rise between ambient air and engine air inlet:	- °C	11.1
Maximum intake air restriction (heavy duty air cleaner):		
dirty filter:	- kPa	6.2
clean filter:	- kPa	2.5

Exhaust System

Max. back pressure imposed by complete exhaust system:	- kPa	21
Maximum allowable static bending moment at exhaust outlet flange:	- N-m	27
Exhaust pipe size normally acceptable:	- mm	130

FUEL SYSTEM

Maximum fuel drain restriction (total head) before (or without) check valve:	- kPa	27
Minimum fuel tank venting requirement:	- L/s	0.2
Maximum fuel inlet temperature:	- °C	71
Maximum heat rejection to return fuel:	- kW	5.36
Maximum design fuel flow:	- kg/hr	204



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Cold Start Performance

Minimum ambient temperature for unaided cold start:	- °C	-15
Minimum ambient temperature for aided cold start:	- °C	-30

Cooling System

Coolant Capacity.....	- L	23.1
Engine coolant circuit thermostat opening temperature:	- °C	82
Engine coolant circuit thermostat fully open temperature:	- °C	94
Maximum coolant pressure(exclusive of pressure cap; closed thermostat at maximum no load speed):	- kPa	407
Maximum coolant temperature - engine out:	- °C	102
Maximum deaeration time:	- mins	25
Minimum operating block coolant temperature:	- °C	71
Minimum fill rate (low level alarm required for most engines):	- litre/mi	19
Maximum coolant expansion space (% total system capacity):	- %	10
Minimum coolant expansion space (% total system capacity):	- %	6
Minimum pressure cap rating at sea level:	- kPa	103
Maximum coolant temperature for engine protection controls:	- °C	107
Full-ON Fan engine coolant outlet temperature:	- °C	95
Maximum allowable pressure drop across charge air cooler and OEM CAC piping (CACDP):	- kPa	10.1

Electrical System

System voltage:	- V	24
Minimum battery capacity-cold soak at -18 C (0 F) or above Engine only (de-clutched load) cold cranking amperes:	- CCA	900

EMISSIONS

Gaseous Emissions per GB 20891-2007, at 1500rpm:

- Weight-Specific Nox:	- g/kW.h	5.341
- Weight-Specific HC:	- g/kW.h	0.124
- Weight-Specific CO:	- g/kW.h	0.393
- Weight-Specific Particulates:	- g/kW.h	0.026



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ALTERNATOR SPECIFICATIONS

TAL 047 - 410 to 660 kVA - 50 Hz / 510 to 825 kVA - 60 Hz

Insulation class	H	Excitation system 6-wire	SHUNT AREP / PMG
Winding pitch	2/3 (wind.6S - 6-wire / wind.6 - 12-wire)	AVR type	R150 R180
Number of wires	6-wire (12-wire option)	Excitation system 12-wire (option)	SHUNT AREP / PMG
Protection	IP 23	AVR type	R250 R180
Altitude	≤ 1000 m	Voltage regulation (*)	± 1 %
Overspeed	2250 R.P.M.	Total Harmonic Distortion THD (**) in no-load < 1.5 %	
Air flow (m³/s)	0.9	Total Harmonic Distortion THD (**) in linear load < 5 %	
Air flow (m³/s)	1.1	Waveform: NEMA = TIF (**)	< 50
AREP Short-circuit current = 2.7 In : 5 second		Waveform: I.E.C. = THF (**)	< 2%

Control Panel

DSE7320 MKII
Auto Mains (Utility) Failure Control Module
The DSE7320 MKII is a powerful, new generation Auto Mains (Utility) Failure genset control module with a highly sophisticated level of new features and functions, presented in the usual DSE user-friendly format. Suitable for a wide variety of single, diesel or gas Gen-set applications.
OVERALL SIZE
245 mm x 184 mm x 51 mm (9.6" x 7.2" x 2.0")
PANEL CUTOUT SIZE
220 mm x 160 mm (8.7" x 6.3")
MAXIMUM PANEL THICKNESS
8.0 mm (0.3")
PRODUCT VARIANTS
7320-03 - 7320 MKII Auto Mains (Utility) Failure Control Module



Optional configurations:

Engine accessories:

- Heavy-duty air filter
- Coolant heater
- Lubricant oil heater
- Fuel and Water Separator
- Lube oil rotary pump

Alternator And Accessories:

- Leroy somer/stamford
- Anti condensation heater
- PMG + AVR ◇ Double bearing
- alternator High voltage,kV
- RTDs for Bearing and winding

Cooling System:

- 55 degree Radiator
- Remote Radiator

Control System:

- AMF
- Parallel
- Practical type in low temperature environment
- Control Screen Heater
- Remote Annunciators
- Other (ComP, DEIF)

Circuit Breaker:

- 3/4 poles
- Fixed/handcart type
- Electric mechanism

Automatic Transfer Switch (ATS):

- ATS cabinet
- Contractor type ATS
- Motorized changeover type ATS

Start Battery:

- Nickel-cadmium battery
- Maintenance-free battery
- Battery charger and selector switch
- Charging current meter

External Fuel Tank:

- Single /double wall fuel tank (500-5000 L)
- Fuel Transfer pump

Exhaust Muffler:

- Residential grade
- Critical grade
- Hospital grade

Available for voltages :

- 400/230V, 480/277V, 380/220V, 440/254V, 416/240V, 220/127V, 208/120V

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Prime Rating:

Unlimited hours usage, with an average load factor of 80% over each 24 hours period. 10% overload is available for 1 hour in every 12 hours operation. 0 overload is permitted on standby power.

Standby Rating:

Limited to 500 hours annual usage, with an average load factor of 80% of the published standby power rating over each 24 hours period. Up to 300 hours of annual usage may be run continuously. No over-load is permitted on standby power.

Engine:

Cummins, including air filters, fuel filters, oil filter, starting motor and charging alternator etc.

Warranty policy:

ATA products have a warranty for 12 months or 1000 hours whichever occurs first against any manufacturing defects

Wearing parts (filters), incorrect man-made operation, maintenance failures are excluded from the warranty policy

Radiator:

50°C, fan protective shroud

Fuel Tank:

Capacity of fuel tank is for 8– 10 hours running
Built in fuel tank up to 800 kVA

Circuit Breaker:

3 pole LS MCCB

Alternator Type:

brushless AC alternator

Control system alarms:

Over and Under Speed
Low and High Battery Volt. Start and Stop Failure Over Current Under / Over Generator Voltage
Low Oil Pressure
Emergency stop High engine temperature



STAMFORD
power generation

DSE



**LEROY
SOMER**

Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice. All photos are representative and may not reflect exact mode.

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